93729

Page 1

November-27-12	. 10.45.25 /11/	··		<u> </u>							
Item ID: Revision ID:	D3199-1			Accept	*N900	040	100)* s	etup Sta	IV	S1*
Item Name:	Bracket								Sto	_h *Ν	S2*
Start Date:	11/22/12	Start Qty: 20.00	*20	*	Cust Item	ID:					
Required Date:	12/07/12	Req'd Qty: 20.00	*20	*	Customer:						
Reference:			, ,								
Approvals:	Process Plan	n: MLJ	Date: \7\\-	フキ Tooling:	D	ate:		R	tun Sta Sto	1/1	R1*
	QC:		Date:	SPC (Y/N):	D	ate:			Sic	້ *N	R2*
Sequence ID/ Work Center II		Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	
Draw Nbr	Revi	sion Nbr									
D3199	E										
100				0.00				25			
100		FLOW WATER JET						Zø	0		JM12-12-20
Waterjet		Memo	I	0.00							
FLOW CNC Waterjo	et	Cut as per I	Dwg D3199								
304,040		Dwg Rev:_ Prog Rev:_	E								•,
		Deburr if r	equired								
110		QC2- Inspect parts off n	nachine FAI/FAIB	0.00				25			
110								21	**		Jn n 12-20
QC Quality Control		Memo		0.00				P			J <u>M</u> <u>11</u> 12-26

												DQA:	Date	:	
NCR:	Yes	/ No					WORK ORDER NON-C	O	NFOR	MANCE / UPI	DATE			₹5,	2
						_						QA Closed:	Date		
Nork Ord	er:						DISPOSITION				AGAINST DE	PARTMENT	/PROCESS		
Part	No.		4				Rework Scrap Use-as-is			Skid-tube Machining noforming	Crosstube Small Fab Finishing	-1	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Othe	y 🗌 📗
NCR	No.	<u></u>			ш		Work Order Update			Large Fab	Composite]	Supplier		
Root					Desc	rip	tion of work order update		nitial	Act	ion	Sign &			
Cause		Date	Step	Qty		o	r Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspe	ctor
oc/Data															İ
quip/Tooling															
perator							•	1							į
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			•				FA	AUL	T CATE	GORY	<u> </u>		<u> </u>		
Landi	ng (Gear					General								
		Bending					Bend		Grain			Ovalized		Pressure/Ford	ced
		Centre No	ot Concer	ntric to (o/s [BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature	/Cure
		Cracks-			Γ		Broken/Damaged		Inspect	on Incomplete		Part Incorred	ct	Weld	
		Crushed/0	Crimped.				Burrs		Instruct	ions Incomplete/l	Jnclear	Part Lost/Mi	issing	Wrong Stock	Pulled
		Cuffs			ľ		Contamination		Mainte	nance		Part Moved			·
		Heat Trea	ıt		T	\neg	Countersink		Mislabe	led		Positioned V	Vrong		
		Inspection	n Strip in	Tube	F		Cut Too Short		Misread	I		Power Loss/		Other	
		Ripples in	-		<u> </u>	\neg	Drill Holes		Offset				· L		
		Torque W		xtrusion	,		Drawing		Out of	Calibration					
	Г	Turning S					Finish	Г	4	Sequence				-	

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Wave/Twist in Tube

Folio

Work Order ID 93729 *93729* Page 2 November-27-12 10:45:23 AM Accept *N900040100* Item ID: D3199-1 Setup Start **Revision ID:** Stop Bracket Item Name: Start Qty: 20.00 **Start Date:** 11/22/12 **Cust Item ID:** Required Date: 12/07/12 Req'd Qty: 20.00 **Customer:** Reference: Start Run Tooling: Process Plan: Date: Date: Approvals: Stop QC: Date: _____ SPC (Y/N): Date: Reject Reject Sequence ID/ **Operation** Set Up/ Tool ID Tool # Plan Accept Insp. Number Stamp Qty **Work Center ID** Code **Qty Description Run Hours** 0.00 , **DAS** 120 QC8- Inspect parts - second check *120* QC Memo Quality Control 130 0.00 Small Fab *130* 0.00 Small Fab Memo Small Fab Form as per dwg D3199 use DT9723 QC5- Inspect part completeness to step on W/O 140 *140* 0.00 131.3

QC

Quality Control

Memo

DQA: Date:

NCR:	Yes	/	No

WORK ORDER NON-CONFORMANCE / UPDATE

										QA Closed:	Date	2:
Work Orde	r:				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N	Part No				Rework Scrap Use-as-is Work Order Update]	ا Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	⊣	Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
Root	l			Descri	ption of work order update	Init	tial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief		Desc	ription	Date	Verification	QC inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved)					
			<u> </u>		F	AULT (CATE	GORY		1	L	
Landin	g Gear				General							
	Bending Centre No Cracks Crushed/O			o/s	Bend BOM/Route Broken/Damaged Burrs Contamination	Ha In:	struct	re on Incomplete ions Incomplete/ nance	/Unclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved	ct	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
	Heat Trea	t			Countersink	М	islabe	led		Positioned V	Vrong _	
	Inspection	•	Tube		Cut Too Short	М	isreac	ł		Power Loss/	Surge [Other
<u> </u>	Ripples in				Drill Holes	⊢	ffset					
<u> </u>	Torque W		xtrusion	` <u> </u>	Drawing	\vdash		Calibration				
1	Turning S	-			Finish	\vdash		Sequence				
ŀ	Wave/Tw	ist in Tub	e		Folio		utside	Dimensions				

Work Order ID 93729 Page 3 November-27-12 10:45:23 AM D3199-1 *N900040100* Item ID: Accept Setup Start Revision ID: Bracket Item Name: **Start Oty: 20.00** Start Date: 11/22/12 **Cust Item ID:** Required Date: 12/07/12 Rea'd Otv: 20.00 Customer: Reference: Run Process Plan: Tooling: Date: Approvals: Date: Stop Date: SPC (Y/N): Date: Sequence ID/ Reject Tool ID Tool # Plan Operation Set Up/ Accept Reject Insp. Work Center ID Description Run Hours Code Otv Otv Number Stamp Grey Sandtex(Ref: 4.3, 5.6), per QSI005 4.3 150 0.00 25 & BL 13-1-10 *150* Powdercoat 0.00 Powder Coating OC3- Inspect Part Finish 0.00 160 25x d Miladia *160* 0.00 Memo **Ouality Control** Identify as per dwg & Stock Location: \$2500.00 170 *170*

0.00

Memo

Packaging

Packaging

DQA: Date:

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

													QA Closed:	Date:	
Nork Orde	r.						DISPOSITION				AGAII	NST DE	PARTMENT/	PROCESS	
Part N	_						Rework Scrap		1	Skid-tube Machining	Crossto	Fab		Water Jet	Engineering Quality
NCR N	lo						Use-as-is Work Order Update			noforming Large Fab	Finish Compo	~ —	Rec/Stor	e/Packaging Supplier	Other
Root					Desci	ript	tion of work order update	١	nitial		Action		Sign &	·· ·	
Cause		Date	Step	Qty		or	Non-conformance	Ch	ief Eng	De	escription		Date	Verification	QC Inspector
oc/Data quip/Tooling perator Material etup									5						
rocess upplier raining		İ		-											
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Landir	o G	ear					General	701	CATE	JON 1					
		Bending Centre No Cracks	ot Concer	ntric to (o/s		Bend BOM/Route Broken/Damaged		Grain Hardwa Inspecti	re on Incomplete	2		Ovalized Over/Under Part Incorred	-	Pressure/Forced Temperature/Cure Weld
[_	Crushed/0	Crimped.				Burrs		4	ions Incomplet	te/Unclear		Part Lost/Mi	ssing	Wrong Stock Pulled
ļ		Cuffs			L		Contamination	-	Mainte			<u> </u>	Part Moved		
	\dashv	Heat Trea			<u> </u>	_	Countersink	—	Mislabe			<u> </u>	Positioned V		¬
1	_	Inspection		Tube	Ļ		Cut Too Short	L	Misread				Power Loss/	Surge	Other
ļ.	_	Ripples in			<u> </u>	_	Drill Holes	<u></u>	Offset						
ļ		Torque W			¹	→	Drawing		4	Calibration					
ļ	_	Turning Se	•		<u> </u>	-	Finish		1	equence					
	- [Wave/Tw	ist in Tub	e e	İ	- [1	Folio	1	Outside	Dimensions					

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order ID 93729 *93729* Page 4 November-27-12 10:45:23 AM D3199-1 Accept Item ID: *N900040100* Setup Start **Revision ID:** Item Name: Bracket **Start Otv: 20.00** Start Date: 11/22/12 **Cust Item ID:** Required Date: 12/07/12 Req'd Qty: 20.00 **Customer:** Reference: Run Date: Tooling: Process Plan: Date: Approvals: Stop OC: Date: SPC (Y/N): Date: Tool ID Reject Reject Sequence ID/ Operation Set Up/ Tool # Plan Accept Insp. Qty Qty Number Stamp Work Center ID Description Run Hours Code 180 OC21- Final Inspection - Work Order Release 0.00 *120* QC 0.00 Memo **Quality Control**

Mt 131-11

DQA: Date: **WORK ORDER NON-CONFORMANCE / UPDATE** NCR: Yes / No QA Closed: Date: DISPOSITION AGAINST DEPARTMENT/PROCESS Work Order: Skid-tube Crosstube Water let Engineering Rework Machining Small Fab Prod. Eng. Coor. Quality Part No. Scrap Finishing Use-as-is Thermoforming Rec/Store/Packaging Other Work Order Update Large Fab Composite NCR No. Supplier Description of work order update Sign & Root Initial Action or Non-conformance Cause Date Step Qtv Chief Eng Description Date Verification QC Inspector Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Bending Bend Grain Ovalized Pressure/Forced

BOM/Route Centre Not Concentric to O/S Hardware Over/Under tolerance Temperature/Cure Cracks Broken/Damaged Inspection Incomplete Weld Part Incorrect Crushed/Crimped. Wrong Stock Pulled Burrs Instructions Incomplete/Unclear Part Lost/Missing Cuffs Contamination Maintenance Part Moved Heat Treat Countersink Mislabeled Positioned Wrong Inspection Strip in Tube **Cut Too Short** Misread Power Loss/Surge Other Ripples in Bend **Drill Holes** Offset Torque Waves in Extrusion Drawing **Out of Calibration** Turning Sequence Finish Out of Sequence Folio Wave/Twist in Tube **Outside Dimensions**

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Picklist Print

November-27-12 10:45:22 AM

Work Order ID:

93729

Parent Item:

D3199-1

Parent Item Name:

Bracket

Start Date: 11/22/12

Required Date: 12/07/12

Page 1

Start Qty: 20.00

Required Qty: 20.00

Comments:

IPP Rev:C IPP Rev:D Removed Scribing

05-11-05 As per Rev B

JLM 06-11-24 JLM

IPP Rev:E 11.03.31 as per ecn 11-

531 DD verf·EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S20GA 304/316 .040 Sheet		Purchased	No			100	sf	85.2500	0.099	2. 08 421 2. 5			JM 12-12- 20
				Location		Loc Oty	<u>Lo</u>	c Code					
				MAT020		85.2500325							
				12138	0	0.0000325							
				12273	2	16.5							
				12275	3	68.75							
				1240	29				(240	029			

										DQA:	Date:	
NCR: Y	⁄es	/ No				WORK ORDER NON-	CONFOR	MANCE / U		QA Closed:	Date:	
Work Orde	or.					DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part N	-				·····	Rework Scrap Use-as-is] _{Ther}	Skid-tube Machining moforming	Crosstube Small Fab Finishing	₹	Water Jet d. Eng. Coor.	Engineering Quality Other
NCR N	۰ No	,				Work Order Update		Large Fab	Composite	1,00,000	Supplier	
Root					Descri	ption of work order update	Initial	A	Action	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Chief Eng	De:	scription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator				i								
Material												
Setup							}					
Other												
Process												
Supplier					ļ							
Training												
Unapproved					1							
3			<u> </u>		•		ΔΙΙΙΤ CΔΤΙ	FGORY				

•			HUI	ET CATEGORT	 	
Landing	Gear	General				
	Bending	Bend		Grain	Ovalized	Pressure/Forced
	Centre Not Concentric to O/S	BOM/Route		Hardware	Over/Under tolerance	Temperature/Cure
	Cracks	Broken/Damaged		Inspection Incomplete	Part Incorrect	Weld
	Crushed/Crimped.	Burrs		Instructions Incomplete/Unclear	Part Lost/Missing	Wrong Stock Pulled
	Cuffs	Contamination		Maintenance	Part Moved	
	Heat Treat	Countersink		Mislabeled	Positioned Wrong	 _
	Inspection Strip in Tube	Cut Too Short		Misread	Power Loss/Surge	Other
	Ripples in Bend	Drill Holes		Offset		
	Torque Waves in Extrusion	Drawing		Out of Calibration		
	Turning Sequence	Finish		Out of Sequence		
	Wave/Twist in Tube	Folio		Outside Dimensions		

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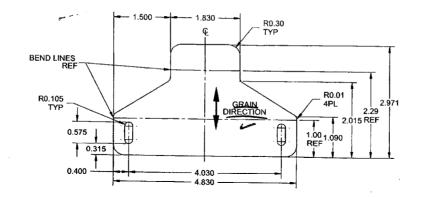
DART AEROSPACE LTD	Work Order: 93729
Description: Bracket	Part Number: D3199-1
Inspection Dwg: D3199 Rev: E	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

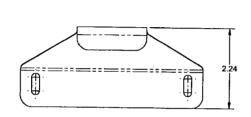
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.210	+0.005/-0.001	0.311,	_		V	Ikmoi
0.575	+/-0.010	0.577"	-		V	
1.090	+/-0.010	1.090"	_		V	
2.015	+/-0.010	2015"	_		V	
2.971	+/-0.010	2.977	_		V	
1.830	+/-0.010	1.832			v	
4.830	+/-0.010	4.833"	_		V	
4.030	+/-0.010	4,029	_		/	
Grain	D'irection	1 .	~			
			QA_9	}		

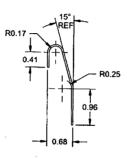
Measured by:	Jm	Audited by:	\$-83	Preliminary Approval:	
Date:	12-12-20	Date:	12/220	Date:	

Rev	Date	Change	Revised by	Approved
Α	06.10.20	New Issue	KJ/JLM	
В	06.11.24	Dwg Revision revised	KJ/JLM	
С	11.03.08	Dwg Rev updated	KJ , A	
D	12.02.06	Dwg Rev updated	KJ ak	



D3199-1F FLAT PATTERN





NOTES:
1) MATERIAL: AISI 304/316 SS SHEET, 0.040 THICK, ANNEALED, 2B FINISH
PER MIL-S-5059, OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240
REP DART SPEC M304S20GA
2) FINISH: POWDER COAT "GREY SANDTEX" (4.3.5.6) PER DART QSI 005 4.3
3) TOLERANCES: PER DART OSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3199-X" AND B/N "BXXXXXX" PER QSI 044 6.1
7) WEIGHT: D3199-1 = 0.11 lbs, D3199-3/-4 = 0.26 lbs EACH

8

D

С

В

SHOP COPY RETURN TO ENGINFERING UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER 93729 MLJ 12-11-27

2011 -07- 1

REV.	DESCRIPTION	BY	DATE
Α .	NEW ISSUE	CP	03.08.05
8	2.24 WAS 2.142; ADD FINISH; UPDATE DWG	СВ	06.11.01
<u>c</u>	ADD -3/-4 PART (SHEET 2-4)	HS	09.11.19
D	RE-DESIGNED D3199-3/-4/-3F PER CUSTOMER FEEDBACK TO ELIMINATE BINDING OF DOOR ONCE BRACKETS ARE INSTALLED. REF.: PAR11-79	МВ	11.03.21
E	RE-DESIGNED D3199-3/-4/-3F PER CUSTOMER FEEDBACK TO OPTIMIZE FIT.	мв	11.07.11

744.	b	DESCRIPTION	1 BY 1	DATE	
DESIGN Q		DART AEROSPACE LTD			
DRAWN	h	HAWKESBURY, ONTARIO, CANADA			
CHECKED	in	DRAWING NO.		REV. E	
MFG. APPR.	Bo	D3199		SHEET 1 OF 4	
APPROVED	- נשגר	TITLE		SCALE	
DE APPR.	#	BRACKET		NTS	
DATE 11.	07.11	COPYRIGHT © 2003 BY DART AEROSPACE LTD THIS DOCUMENT IS FROM THE AND CORPORATION AND IS SUPPLIED ON THE EPPRESS CONCINENT HIST IT IS NOT TO BE USED FOR MY REPORCE OF REPORTS ON COMPANIENT TO THE OFFER PERSON WITHOUT			

